

PIERONI, A., GIUSTI, M.E, GRAZZINI, A.  
*ANIMAL REMEDIES IN THE FOLK MEDICINAL PRACTICES OF THE LUCCA AND PISTOIA PROVINCES, CENTRAL ITALY*  
IN FLEURENTIN, J., PELT, J.-M., MAZARS, G. (EDS.):  
*DES SOURCES DU SAVOIR AUX MÉDICAMENTS DU FUTUR/FROM THE SOURCES OF KNOWLEDGE TO THE MEDICINES OF THE*  
*FUTURE, PROCEEDINGS OF THE 4TH EUROPEAN COLLOQUIUM OF ETHNOPHARMACOLOGY*  
IRD ÉDITIONS, PARIS, FRANCE, 2002, PP. 371-375

## **Animal remedies in the folk medical practices of the upper part of the Lucca and Pistoia Provinces, Central Italy**

**Pieroni A.<sup>1</sup>, A. Grazzini<sup>2</sup> and M.E. Giusti<sup>3</sup>**

<sup>1</sup>Centre for Pharmacognosy and Phytotherapy, The School of Pharmacy,  
University of London, 29-39 Brunswick Square, London WC1N 1AX, UK,

<sup>2</sup>Cattedra di Zoologia, Università degli Studi di Pisa, Italy

<sup>3</sup>Cattedra di Storia delle Tradizioni Popolari, Dipartimento di Italianistica,  
Università degli Studi di Firenze, Piazza Savonarola 1, I-50132 Firenze, Italy

### Summary

An ethno/zoopharmacognostic survey on the remedies used in the folk medicine of the Lucca and Pistoia Provinces, Tuscany, central Italy, was carried out. In many rural areas the elderly still retain much valuable knowledge of local medicine, but these practices are almost completely abandoned today.

Cobwebs, fresh urines, honey, various milk derivatives, and animal parts (liver, fat, blood, meat) have frequently been used in the local traditional medicinal practices. In particular, cheese and meat preparations were considered as food medicine for different conditions; as preventives, or to treat minor ailments. Some of these remedies have the same prescriptions as those described in several old historical medical texts, suggesting interaction between official and popular medicinal practices in the past. However some prescriptions appear to be original.

Although today much is known about the phytochemistry and phytopharmacology of many traditional plant remedies, real bio-scientific evaluations of remedies of animal origin are still quite rare in the literature. Therefore, further studies following this direction could be very valuable in confirming the therapeutic usefulness of a few of these remedies.

Keywords: *animal drugs; ethnomedicine; ethnopharmacology; Italy; pharmacognosy; Tuscany*

### Introduction

Although today much is known about the chemistry and pharmacology of many traditional plant remedies, studies on drugs of animal origin are still rare in the literature. Nevertheless, animal remedies have played a central role in the historical European pharmacopoeias until at least the Sixties (Schindler and Frank, 1961), and through the European classical historical medical treatises (as for example in Dioscorides' *Materia Medica*, or as in the later works of St. Hildegard from Bingen, Mattioli, Tabernaemontanus, Lonicer).

If we consider mammals for example, it's easy to note that many species were used in the past common as food-medicines, while at the present the use of a few ingredients derived from mammals still survives only for cosmetic purposes (as in the case of *Castor canadensis*, *Moschus moschiferus*, and *Viverra* ssp. pl. secretes).

More common is still now the utilisation of insects and arthropods for food and medicinal aims in traditional societies in Central America (Ramos-Elorduy de Conconi and Moreno, 1988), Africa (van Huis, 1996, Herren et al., 2000) and Asia (Zimian et al., 1997; Pemberton, 1999), where they still play an important role for example in the Traditional Chinese Pharmacopoeia. On the contrary, in Western countries, the use of *Lytta vesicatoria*, *Kermes* sp. pl., *Dactylopius coccus*, and *Laccifer lacca* secret is considered today archaic. On the other hand, studies on new isolated natural products from amphibians (Teuscher and Lindequist, 1994) and from various marine organisms (Faulkner, 1996) seem to have much more to do with natural product chemistry, than with the science of pharmacognosy.

Field ethnomedical studies carried out in the last decades around the world described more than 40 animal food-medicinal remedies (Pieroni and Grazzini, 1999), while in the Mediterranean area, quotations of still used animal drugs are restricted to field works carried out on the popular pharmacopoeia in Morocco (Bellekhdar, 1997) and Sudan (El-Kamali, 2000) and to a few notes collected during ethnobotanical studies in Turkey (Tabata et al., 1994; Sezik et al., 1997; Yeşilada et al., 1995 and 1999, Ertuğ, 1999).

Bioscientific evaluation studies on indigenous animal drugs have been also very rare during the last decades (But et al., 1990; But et al., 1991; Al-Harbi et al., 1996).

Therefore, ethnopharmacological studies focused on animal remedies could be very important in order to clarify the eventual therapeutic usefulness of this class of biological remedies and to really open a new "chapter" in pharmacognosy.

In order to record all the biological remedies still used in the Italian folk practices, a field ethnopharmacognostic study was carried out in the upper part of the Lucca and Pistoia Provinces, north-western Tuscany, Central Italy. In these regions there are a few rural areas, which have been remained quite isolated and where the elderly still retain much valuable knowledge of local folk medicine.

## **Methods**

Field researches were conducted by collecting ethnomedical information during interviews with 29 knowledgeable persons living in villages of the mountainous areas of the Lucca and Pistoia Provinces (north-western Tuscany, Central Italy, figure 1), and native to the territory. Characteristic of the villages is their small population (50-500 inhabitants) and a continuing traditional way of life. People were asked to quote traditionally used animal remedies and an attempt was made in order to quantify the perceptions of various animal foods as *food-medicines*. A questionnaire was filled in for each quotation. Tape records were also obtained.

## **Discussion**

The geographical isolation of the studied area has permitted a rich popular knowledge and also the surviving of old folk medical practices to be maintained to the present. Animal drugs used in the folk medical practices in the studied area are reported in table 1.

In particular the use of fresh cobwebs, human urine and living slugs or snails as haemostatic, vulnerary and anti-ulcer respectively, demonstrate the archaic persistence of old folk medical practices, which have been already described by the most important historical medical texts of the Mediterranean areas as the treatises of Dioscorides and Mattioli.

More uncommon is the tradition of preparing an expectorant poultice by crashed freshwater crabs (*Potamon fluviatile*, figure 2), whose gathering activity was - especially in the past - reserved to special knowledgeable persons and the use of wood damaged by woodworms to heal skin inflammations. Moreover, the use of fresh

menstrual flow in external application against warts, the ingestion of cooked mouse meat or its external use as anti-enuresis mean (especially for children), as well as the external use of the leg of a hare as anti-mastitis mean and of a black hen against typhus are characterised by remarkable symbolisms.

An other important part of the recorded animal remedies is represented by food-medicines. In particular, some meat preparations, whose assumption was also rare in the past, were considered having a special character as ailments for light diseases. In particular, the consumption a raw egg as reconstituent for persons affected by psychic disorders and of frog legs as intestine refreshing mean seems quite unusual.

Further studies would be necessary in order to bio-scientific evaluate the eventual properties of some of the remedies quoted in the studied area.

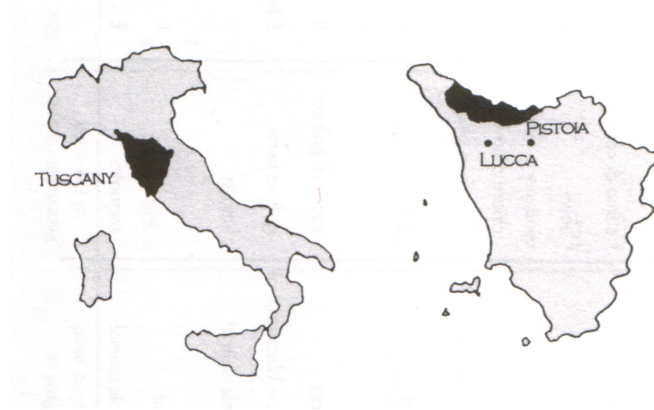
### **Acknowledgement**

Special thanks are due to all the informants of the villages, who volunteered to share their precious experiences about traditional medical remedies, and in particular to: Francesca Baisi (75 y.o.), Rosita Bertagni (75 y.o.), Angela Bertolami (67 y.o.), Iride Bertei (70 y.o.), Maria Giuseppina Bertei (64 y.o.), Doriana Bertolini (65 y.o.), Elena Bertolini (81 y.o.), Giulio Bonini (98 y.o.), Antonietta Bosi (67 y.o.), Elio Brega (75 y.o.), Marianna (Ottavia) Fontanini (83 y.o.), Silvia Guerrini (70 y.o.), Graziana Guidi (62 y.o.), Niccoletta Guidi (56 y.o.), Corinno Magistrelli (77 y.o.), Paolino Panini (62 y.o.), Isolina Pieroni (69 y.o.), Rita Rossi (80 y.o.), Marisa Talani (66 y.o.), Liliana Vannozzi (77 y.o.), Andreina Venchi (83 y.o.).

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**Figure 1. Geographical location of the studied area.**



**Figure 2.** The freshwater crab (*Potamon fluviatile*, Family: Potamidae) used traditionally in the studied area externally as expectorant.



**Table 1. Animal remedies used in the folk medical practices in the studied area.**

<i>Scientific name of the species</i>	<i>Common name of the species</i>	<i>Part or product used</i>	<i>Vernacular name of the used part/product</i>	<i>I: internal use; E: external use</i>	<i>Modality of use</i>	Recorded ethnomedical use	Role as food-medicine
<i>Anobium punctatum</i>	woodworm	wood damaged by the animal	legno camulato	E	external application, then covering by an emulsion of water and olive oil	against skin inflammation	
<i>Apis mellifera</i>	bee	wax	cera	E	external application in mixtures with olive oil	emollient	
		honey	miele	I	in hot milk, then drunk	against cold; anti-inflammatory of the oral tract	X
<i>Arion hortensis</i>	slug	whole animal	lumacon	I	eaten raw	anti-ulcer	X
<i>Bos domesticus</i>	calf	brain	cervello	I	eaten cooked	reconstituent	X
	beef	meat	meat	I	soup	reconstituent	X
	cow	rennet	presame	E	external application on skin inflammations produced by thorns	suppurative	
		curds	cajata	I	eaten	mild laxative (especially for children)	X
		faeces	cacca della vacca	E	external application on the cow's udder (mixed with clay)	against cow mastitis (veterinary)	
<i>Equus caballus</i>	horse	meat	carne di cavallo	I	eaten cooked	reconstituent	X
<i>Gallus sp.</i>	hen	egg	uovo	I	eaten raw	anti-anaemic; reconstituent for persons with psychic disorders	X
		albumen	chiara d'uovo	E	cataplasm (together with tow or by linen or hemp cloths)	anti-sprains	
		meat	gallina	I	soup	reconstituent (especially given to the women, who have just given birth)	X
		faeces	cacca di gallina	E	external application	vulnerary	
		whole black animal	gallina nera	E (ritual)	put on the abdomen	against typhus	
<i>Helix sp.</i>	snail	whole animal	limaca	E	cataplasm of the	against toothache	



					crushed animal		
		meat		I	eaten raw	anti-ulcer	X
<i>Hirundo medicinalis</i>	leech	whole animal	mignatta	E	applied externally	anti-hypertension; against lunge diseases; anti-contusions; anti-tonsillitis	
<i>Homo sapiens</i>	human	urine	piscia	E	topic application;	antiseptic and vulnerary	
				E	external application of a piece of wool cloth imbibed in urine and covered by hot ashes	anti-sprains	
				I	let rest one night outside under a stern sky ("alla serena"), than drank	against intestinal inflammations	
		menstrual flow	sangue del "corso"	E	external application on opened warts	anti-warts	
		faeces of a baby	cacca di un bimbo	E	external application on the woman breast	anti-mastitis	
<i>Lepus europaeus</i>	hare	leg	zampina di lebre	E (ritual)	put on the affected breast	anti-mastitis	X
<i>Mus musculus</i>	mouse	meat	topo	I	fried	anti-enuresis	X
		whole animal	topo	E (ritual)	the animal is rubbed onto the blankets	anti-enuresis	X
<i>Oryctolagus cuniculus</i>	rabbit	meat	carne di cunjo	I	soup	anti-cold; anti-stomach-ache	X
<i>Pediculus humanus</i>	louse	whole animal	pidocchio	I	eaten raw together with milk	anti-hepatitis	
<i>Potamon fluviatile</i>	freshwater crab	whole fresh animal	granchio di fiume	E	poultice	expectorant	
<i>Rana sp.</i>	frosh	leg	cosce di rana	I	eaten fried	intestine refreshing	X
<i>Sus sp.</i>	pig	fat	sciungia; sciugna	E	external application (together with white lead)	anti-burns	
				E	application on the breast of a piece of straw paper coated by fat and made hot by a bag containing ashes(simultaneously the feet have to be warmed and also	against lung diseases	

					covered by fat)		
		lard	lardo	E	eternal application	anti-haematoma	
				E	external application	emollient	
various species of the Araneidae family	spider	cobweb	ragnatela	E	external application	haemostatic and vulnerary	